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Soto(10) **Pub. No.: US 2021/0099736 A1**(43) **Pub. Date: Apr. 1, 2021**(54) **SYSTEMS AND METHODS FOR PLAYBACK
DEVICE MANAGEMENT**(52) **U.S. Cl.**CPC ... *H04N 21/2387* (2013.01); *H04N 21/47217*
(2013.01); *G06F 3/048* (2013.01)(71) Applicant: **Sonos, Inc.**, Santa Barbara, CA (US)(72) Inventor: **Kurt Thomas Soto**, Ventura, CA (US)(21) Appl. No.: **16/775,212**(22) Filed: **Jan. 28, 2020****Related U.S. Application Data**(60) Provisional application No. 62/907,367, filed on Sep.
27, 2019.**Publication Classification**(51) **Int. Cl.***H04N 21/2387* (2011.01)*G06F 3/048* (2013.01)*H04N 21/472* (2011.01)

(57)

ABSTRACT

Systems and methods for managing playback devices in accordance with embodiments of the invention are illustrated. One embodiment includes a method for modifying a system that includes several devices. The method includes steps for measuring a first signal pattern for wireless signals between the several devices, measuring a second signal pattern for the wireless signals after measuring the first signal pattern between the several devices, determining an updated state of the system based on a difference between the second signal pattern and the first signal pattern, and modifying state variables of one or more devices of the playback system based on the determined updated state.

